CLAIMS

A complete set of the claims is provided for the convenience of the Examiner. No amendments have been made.

1. (Previously presented) A method of improving the efficiency of a fuel for an internal combustion engine which comprises adding to the fuel, prior to the introduction of the fuel to a vehicle or other apparatus comprising an internal combustion engine:

(a) cerium oxide and/or doped cerium oxide; and

(b) a detergent; and, optionally,

(c) one or more fuel additives.

2. (Previously presented) A method according to claim 1 which comprises adding doped cerium oxide which is doped with a divalent or trivalent metal or metalloid which is a rare earth metal, a transition metal or a metal of group IIA, IIIB, VB or VIB of the Periodic Table.

3. (Original) A method according to claim 2 wherein the metal is a transition metal.

4. (Original) A method according to claim 3 wherein the metal is rhodium, copper, silver, gold, palladium, platinum, iron, manganese, chromium, cobalt, vanadium, zirconium or titanium.

5. (Previously presented) A method according to claim 2 wherein the metal is terbium, praeseodymium, samarium, gadolinium, antimony, selenium, gallium, magnesium, beryllium, boron or calcium.

6. (Previously presented) A method according to claim 1 wherein the cerium oxide and/or doped cerium oxide has a size not exceeding 1 micron.

7. (Original) A method according to claim 6 wherein the cerium oxide and/or doped cerium oxide has a size from 1 to 300nm.

8. (Previously presented) A method according to claim 1 wherein the cerium oxide and/or doped cerium oxide has been coated with an organic acid, anhydride or ester or a Lewis base.

9. (Previously presented) A method according to claim 8 wherein the cerium oxide and/or doped cerium oxide has been coated with a dicarboxylic acid anhydride.

10. (Previously presented) A method according to claim 9 wherein the cerium oxide and/or doped cerium oxide has been coated with an alkenyl succinic anhydride.

11. (Original) A method according to claim 10 wherein the succinic anhydride is dodecenyl succinic anhydride, octadecenyl succinic anhydride or polyisobutenyl succinic anhydride.

12. (Previously presented) A method according to claim 1 wherein the fuel is diesel fuel.

13. (Previously presented) A method according to claim 1 wherein the cerium oxide and/or doped cerium oxide is added with a solvent which is an aliphatic or aromatic hydrocarbon or an aliphatic alcohol.

14. (Previously presented) A method according to claim 1 wherein the cerium oxide and/or doped cerium oxide is added to the fuel at a refinery.

15. (Previously presented) A method according to claim 1 wherein the cerium oxide and/or doped cerium oxide is added at a fuel depot.

16. (Previously presented) A method according to claim 1 wherein the cerium oxide and/or doped cerium oxide is added at a filling station forecourt.

17. (Previously presented) A method according to claim 1 wherein the cerium oxide and/or doped cerium oxide is added together with one or more of a detergent, dehazer, anti-foaming agent, ignition improver, anti-rust agent, reodorant, anti-oxidant, metal deactivator, lubricity agent or demulsifier.

18. (Original) A method according to claim 17 wherein the cerium oxide and/or doped cerium oxide is added together with a detergent.

19. (Previously presented) A method according to claim 1 wherein the detergent is a basic nitrogen-containing ashless detergent.

20. (Original) A method according to claim 19 wherein the detergent is a succinimide which has an average of at least 3 nitrogen atoms per molecule.

21. (Original) A method according to claim 20 wherein the succinimide is derived from an alkyl or alkenyl succinic acylating agent having at least 35 carbon atoms in the alkyl or alkenyl part and an alkylene polyamine mixture having an average of at least 3 nitrogen atoms per molecule.

22. (Original) A method according to claim 20 wherein the succinimide is derived from a polyisobutenyl succinic acylating agent obtainable from a polyisobutene having a number average molecular weight of 500 to 10,000 and an ethylene polyamine having an average composition from triethylene tetramine to pentaethylene hexamine.

23. (Original) A method according to claim 21 wherein the aliphatic chain of the succinimide has a molecular weight from 500 to 2500.

24. (Original) A method according to claim 23 wherein the aliphatic chain of the succinimide has a molecular weight from 750 to 1500.

25. (Previously presented) A method according to claim 18 wherein the cerium oxide and/or doped cerium oxide is added together with at least one of an anti- foaming agent, demulsifier or anti-rust agent.

26. (Previously presented) A method according to claim 1 wherein the cerium oxide and/or doped cerium oxide is added at a concentration not exceeding 20ppm.

27. (Original) A method according to claim 26 wherein the cerium oxide and/or doped cerium oxide is added in an amount not exceeding 10 ppm.

28. (Canceled)

29. (Original) A fuel additive which comprises cerium oxide and/or doped cerium oxide and a detergent.

30. (Original) A fuel additive according to claim 29 wherein the concentration of cerium oxide and/or doped cerium oxide is from 0.1 to 10% by weight.

31. (Original) A fuel additive according to claim 30 wherein the concentration of cerium oxide and/or doped cerium oxide is from 0.5 to 5% by weight.

32. (Previously presented) A fuel additive according to claim 29 which comprises doped cerium oxide which is doped with a divalent or trivalent metal or metalloid which is a rare earth metal, a transition metal or a metal of group IIA, IIIB, VB or VIB of the Periodic Table.

33. (Previously presented) A fuel additive according to claim 29 wherein the detergent is a basic nitrogen-containing ashless detergent.

34. (Original) A fuel additive according to claim 33 wherein the detergent is a succinimide which has an average of at least 3 nitrogen atoms per molecule.

35. (Original) A fuel additive according to claim 34 wherein the succinimide is derived from an alkyl or alkenyl succinic acylating agent having at least 35 carbon atoms in the alkyl or alkenyl part and an alkylene polyamine mixture having an average of at least 3 nitrogen atoms per molecule.

36. (Original) A fuel additive according to claim 34 wherein the succinimide is derived from a polyisobutenyl succinic acylating agent obtainable from a polyisobutene having a number average molecular weight of 500 to 10,000 and an ethylene polyamine having an average composition from triethylene tetramine to pentaethylene hexamine.

37. (Original) A fuel additive according to claim 35 wherein the aliphatic chain of the succinimide has a molecular weight 500 to 2500.

38. (Original) A fuel additive according to claim 37 wherein the aliphatic chain of the succinimide has a molecular weight 750 to 1500.

39. (Previously presented) A fuel additive according to claim 29 which also comprises one or more of a dehazer, anti-foaming agent, ignition improver, anti-rust agent, reodorant, anti-oxidant, metal deactivator, lubricity agent or demulsifier.

40. (Original) A fuel additive according to claim 39 which comprise one or more of an anti-foam agent, an anti-rust agent or a demulsifier.

41. (Previously presented) A fuel additive according to claim 29 which comprises a solvent which is an aliphatic or aromatic hydrocarbon or an aliphatic alcohol.

42. (Canceled)

43. (Previously presented) A method according to claim 1 wherein the detergent is an amide, amine, Mannich base or succinimide.

44. (Previously presented) A method according to claim 43, wherein the detergent is a hydrocarbyl-substituted amine or a hydrocarbyl-substituted amide.

45. (Previously presented) A fuel additive according to claim 29 wherein the detergent is an amide, amine, Mannich base or succinimide.

46. (Previously presented) A fuel additive according to claim 45, wherein the detergent is a hydrocarbyl-substituted amine or a hydrocarbyl-substituted amide.